

Open Research Online

The Open University's repository of research publications and other research outputs

Supporting design: national business support programmes in the UK and South Korea

Journal Item

How to cite:

Choi, Youngok; Lim, Sungwoo and Evans, Martyn (2012). Supporting design: national business support programmes in the UK and South Korea. *Design Journal*, 15(1) pp. 79–104.

For guidance on citations see [FAQs](#).

© 2012 BERG

Version: Version of Record

Link(s) to article on publisher's website:

<http://dx.doi.org/doi:10.2752/175630612X13192035508589>

Copyright and Moral Rights for the articles on this site are retained by the individual authors and/or other copyright owners. For more information on Open Research Online's data [policy](#) on reuse of materials please consult the policies page.

oro.open.ac.uk

Supporting Design: National Business Support Programmes in the UK and South Korea

Youngok Choi
Brunel University, Uxbridge, UK

Sungwoo Lim
Loughborough University, UK

Martyn Evans
Lancaster University, UK

ABSTRACT This paper discusses a comparative study of national business support programmes in design operated by National Design Centres (NDCs) in the UK and South Korea. The research identified the drivers for, and barriers to, implementing national support programmes in design and presents the recommendations for new approaches to the development and implementation of such programmes. The research findings

illustrate that while there are some similarities in barriers to implementing such programmes, government support for businesses through NDCs differs in the two countries due to the different content and structure of programme delivery. The research findings also indicate that critical issues influencing national support in design are autonomy and respective organizations' perspectives and purposes.

KEYWORDS: design policy, design strategy, national design programme, business support in design

Introduction



Design is frequently cited as a key tool for enhancing competitiveness and economic success in a world of rapidly changing markets, evolving technology, increasing customer demand for quality products and services, and heavily increased global competitiveness (Blaich, 1988; Bureau of European Design Associations, 2004; Gemser, 1997; Hamel and Prahalad, 1994; Hertenstein *et al*, 2001; National Agency for Enterprise and Housing, 2003; Tether, 2005; Topalian, 1990; Valtonen, 2007). Businesses therefore are increasingly recognizing the importance of design and considering the use of design to achieve business objectives and the ability to compete in both national and international markets, while governments are embracing policies to encourage businesses to develop and implement new products and services through design. Design has thus become a high priority (Department of Trade and Industry, 2003; Valtonen, 2007).

Governments around the world are increasingly acknowledging the role and value of design; many nations – including Denmark, Finland, Germany, China, India, Singapore, Korea and New Zealand – are investing in building the capacity of design sectors, and some nations have developed their own design sectors to assist economic growth (Design Council, 2006b; Walton and Duncan, 2003). Governments are seeking appropriate ways to harness national design capabilities to support industry for competitive advantage in the rapidly changing environments of the global market place and economy. Recently, many governments have formulated design policies and national business support programmes in design in close cooperation with the business sector, to develop design in the face of increasing competition (Hytönen and Heikkien, 2003).

This paper focuses on how governments support businesses through national design bodies by examining two national business support programmes in design in the UK and South Korea. A discussion of the two national business support programmes is presented. These two countries were selected because firstly, they

are regarded as having a clear and effective design policy (Hannon, 1993; Walton, 1993, 2004; Walton and Duncan, 2003) and have applied government design policy and design promotion programmes that have intensified the role of design in international competition (Hytönen and Heikkien, 2003). It is claimed that the UK has a strong government-supported design export programme (Commission on Public Policy and British Business, 1997), has the largest design industry in Europe (Design Council, 2007g), and is a key knowledge hub in the global economy (Department of Trade and Industry, 2003). In South Korea, the government has invested in infrastructure for design promotion, has increased the quality and quantity of design education, and extended the use of design in industry (Ministry of Commerce, Industry and Energy (MOCIE), 2007) gaining recognition through its ambitious design-policy framework and the success of its design support programme (Walton and Duncan, 2003). Secondly, the two countries are different in the level of maturity of their 'design support', that is, the UK has a mature Design Council and South Korea's Korea Institute of Design Promotion (KIDP) is relatively new, and yet, the countries are similar in their design and innovation index ranking in the Global Competitiveness Report (Porter *et al*, 2005; World Economic Forum, 2002).

The principal aim of this study is to recommend suitable approaches for developing and implementing national design policies, particularly national business support programmes in design for Small and Medium Enterprises (SMEs), by considering the research question: 'What are the drivers for and barriers to implementing national business support programmes in design in the UK and South Korea?' The exploratory nature of this research, which begins by determining the phenomenon's attributes, lends itself to a *research-then-theory (inductive)* approach to answering the research question.

Quantitative and qualitative data collection approaches and analysis were triangulated to make best use of the methodology. First, *literature reviews and a comparison of existing data* on the relationship between design and competitiveness investigated current theories of national design policy and identified the relationship between design, national design policies and global competitiveness. Second, *historical-comparative research* was conducted to achieve a thorough understanding of the history of the national design policy and industrial development, and their relationship in the UK and South Korea respectively. Third, in order to understand and compare the two nations' approach to national business support programmes in design, *mixed-methods* were employed:

1. a detailed desk-based analysis including documentary evidence related to the activities of the UK Design Council and the Korea Institute for Design Promotion;
2. open-ended exploratory and in-depth interviews with experts in the areas of design policy and national design support

programmes including 13 respondents from the UK (including the Design Council, Regional Development Agencies (RDAs), delivery partners, design associates and businesses), and with 22 respondents from South Korea (including the Ministry of Knowledge and Economy (MKE), KIDP, businesses, design agencies, a design Non-Governmental Organization (NGO) and academia). Interviews for this study adopted a one-to-one format and used the standardized open-ended interview. Interviews ranged from structured to semi-structured, where the questions are determined before the interview but it is undertaken with an open-ended conversational format. Interviewees were all asked the same predetermined questions to ensure consistency and objectivity, but they could answer in any way they chose because of the open-ended format of the interviews; and

3. a survey to understand the perspective of businesses involved in national design support programmes (82 respondents and employees of 409 SMEs involved in national design support programmes).

The interviewees and a questionnaire survey with SMEs were undertaken in this study with the aim of understanding South Korean businesses' perspective on the national business support programme in design for SMEs, whereas the findings from the exploratory interviews were mainly used for the development of the survey.

Fourth, *comparative analysis* was undertaken to compare the findings in both countries. Fifth, various *data analysis techniques* were employed, including statistical techniques to collect, analyse, justify and interpret data, and determine alternative recommendations. Lastly, recommendations for developing and implementing national support programmes were formulated and stakeholder views were collected via a questionnaire to assist in the validation and refinement of these recommendations. Consultation was conducted with 11 respondents in six countries including Australia, Canada, Finland, Norway, South Korea and the UK. Respondents included the National Design Centres (NDCs), design NGOs, an RDA, a business support agency, an economic research institute and a university involved in national design policies.

This paper presents the background of the national business support programmes in design in the UK and South Korea. A comparative analysis was conducted and recommendations for national business support programmes in design are suggested, and the results of the assessment of the recommendations are also discussed.

National Business Support Programmes in Design in the UK and South Korea

From the desk-based work, interviews and survey, we can describe the activities of the two business support programmes, Designing Demand (UK) and Design Innovation (South Korea) as follows.

Business support in the UK: Designing Demand

Designing Demand is the only national business support programme in design which helps UK businesses use design to improve performance and boost competitiveness, particularly by helping SMEs to compete nationally and globally (Design Council, 2007a, 2007b, 2007c). The programme, launched by the Design Council in September 2006, was in response to the recommendations of the Cox Review of *Creativity in Business: Building on the UK's Strengths* (Cox, 2005) which was undertaken by Sir George Cox, the then Design Council Chairman (Design Council, 2007c).

Designing Demand was developed by the Design Council and delivered in partnership with RDAs (Design Council, 2007e). The RDAs, who determine the nature of the programmes to be delivered in their specific region, are strategic partners with the Design Council, delivering the programme in collaboration with the delivery partners (Design Council, 2007d, 2007e). The delivery partners are generally independent NGOs, which deliver the Designing Demand programme to businesses. The role of design associates is to support businesses participating in the programme. The structure for the delivery of Designing Demand is illustrated in Figure 1.

Designing Demand consists of two key components: (1) Designing Demand Workshops which are targeted at a number of stakeholder groups and introduce the value of design to organizations, and (2) Business Growth Services which utilize design as a vehicle to conduct design-led research activities and/or support the use of design in strategy definition (Design Council, 2007f). Designing Demand Workshops, which are separate one-day workshops, offer support to businesses, designers, business advisors and technology ventures (Design Council, 2007f). Business Growth Services provide one-to-one mentors to support businesses with design, comprising three distinct stages (*Generate*, *Innovate* and *Immerse*) depending upon the depth, nature and duration of the business support required. *Generate* is intended to move a design project forward, identifying how design can be used to enhance a business's competitive edge; *Innovate* focuses on technology ventures between the pre-seed and early-stage phases, using design to commercialize new technology; and *Immerse* offers an intensive strategic workout for mature businesses, collaborating with design managers to investigate how using design can approach core business issues to make a lasting impact on performance (Design Council, 2007f). Figure 2 summarizes the focus of each element of the support programme.

Business support in South Korea: Design Innovation

Design Innovation, South Korea's most representative national business support programme, operates as a growth engine for SMEs (Korea Institute of Design Promotion (KIDP), 2006c; Kim, 2006). The programme was launched in 1994 as part of the first Five-Year-Plan for Industrial Design Promotion. The programme is intended to

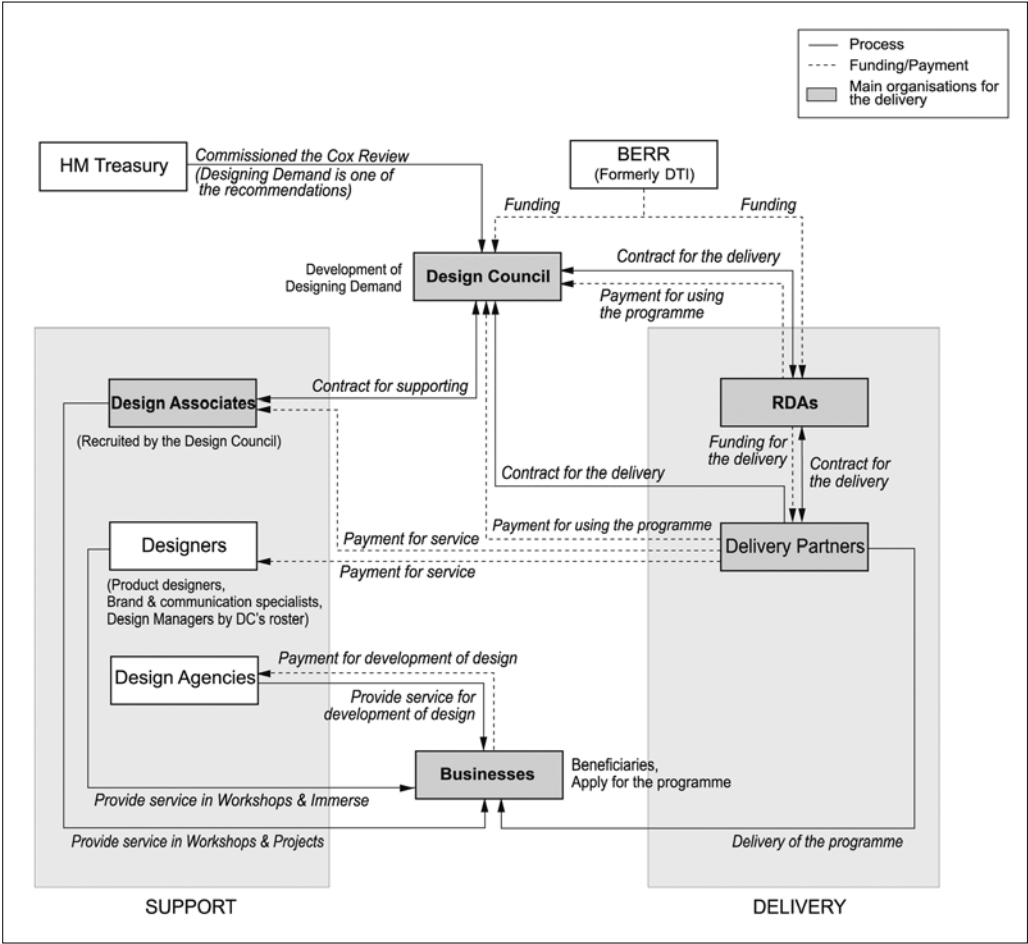


Figure 1
Structure for the delivery of Designing Demand. Based on Design Council (2007f); interviewees from the Design Council, RDAs, delivery partners and design associates.

enhance industrial competitiveness, encourage higher value-added business through design development, provide the infrastructure for sustainable design growth through increased investment in design, and disseminate design management expertise (Korea Institute of Design Promotion (KIDP), 2004, 2006a, 2006c).

The Programme was developed by the Korea Institute of Design Promotion (KIDP) and approved by the Ministry of Commerce, Industry and Energy (MOCIE, now the Ministry of Knowledge Economy (MKE)) to roll out and support delivery of the programme to businesses. KIDP, the main body implementing Design Innovation, provides funds to businesses to develop design through the programme. Independent design agencies carry out projects offering design services to businesses to develop design solutions and participating agencies are selected by KIDP. Figure 3 illustrates the delivery structure of Design Innovation.

The programme supports both SMEs and design agencies. This provides a fully-fledged service, from design development to

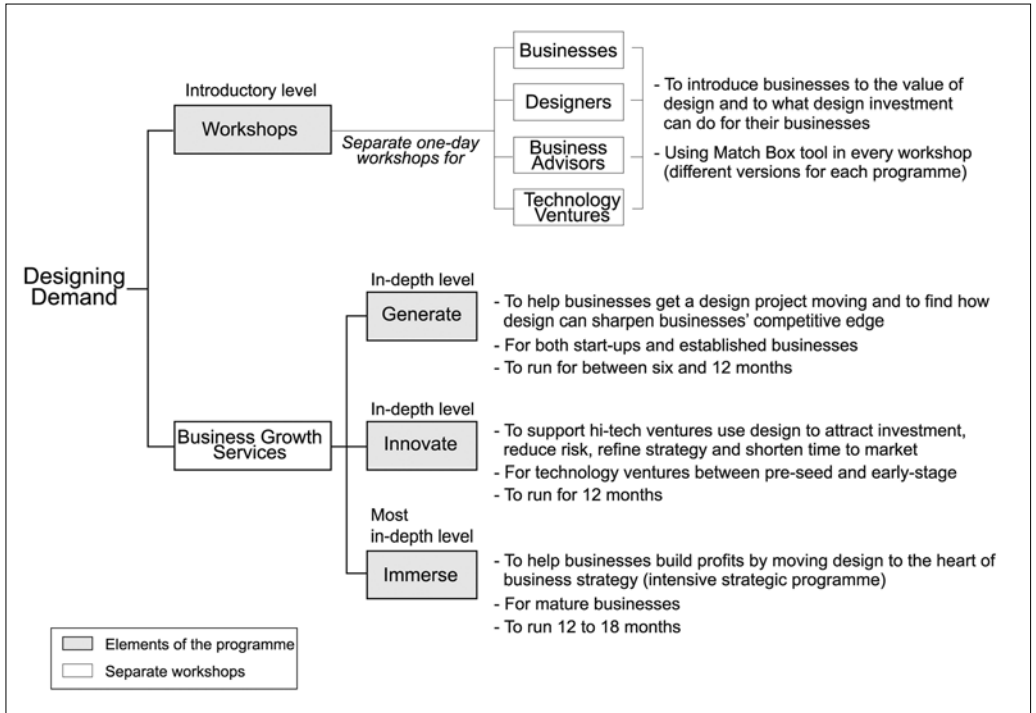


Figure 2
The elements of Designing Demand. Based on Design Council, (2007f); interviewees from the Design Council.

commercialization, to any business experiencing difficulties with either the design development process or financial resources (Korea Institute of Design Promotion (KIDP), 2006c). Design Innovation provides funding support of up to £55,000 a year for businesses to develop design solutions, which covers two-thirds of the fee for design development. If the project is evaluated as a success, the participating business pays back a certain percentage of the support funding (20 per cent of the total fee) as a royalty to the KIDP (Korea Institute of Design Promotion (KIDP), 2006c).

Analysis of the Business Support Programmes

The study identified that design undoubtedly makes a significant contribution to business success and competitiveness, and that businesses need to understand the importance of design. In both countries, government support for industry through national design bodies shares certain similarities, despite their different context, content and delivery structure. In the UK, the features of the Designing Demand programme are: (1) the well-developed content of each component of the programme, three different levels of programmes with different purposes and target groups; (2) the strong brand value of the Design Council; and (3) highly qualified design associates. In South Korea, the key features of the Design Innovation programme are: (1) funding support and (2) the simple delivery structure of the programme.

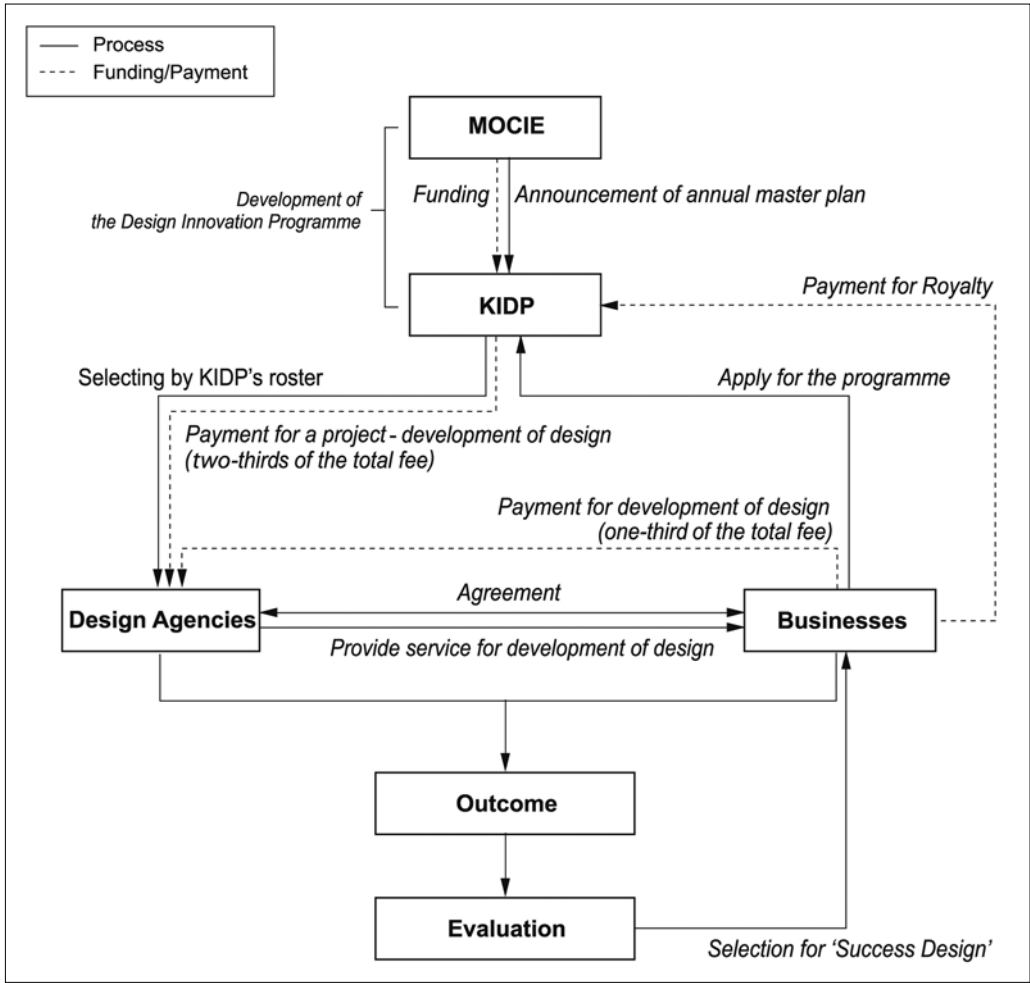


Figure 3
Structure for the delivery of Design Innovation. Based on Korea Institute of Design Promotion (KIDP) (2006a, 2006c).

From the primary and secondary data collected, analysis identified seven key issues regarding national business support in design. These seven issues including the challenges to implementing the national support programmes will now be considered in detail.

Development of the national business support programmes in design

Most SMEs face greater risks and uncertainties than large businesses (Burns, 2007). The primary focus of any business is the maintenance and development of the products, markets and processes of their organization (Bank of England, 1996; Bennett, 2006). However, the specific needs of each business differ according to its size and growth stage and the sector it operates in (Greiner, 1972).

Government-led programmes supporting and promoting design in industry in both the UK and South Korea have encountered operational difficulties due to businesses' differing support needs,

and the inevitable gap between theory and practice. The effectiveness of support also differs according to the size of a business. Although data on participant satisfaction indicates that the programmes are well developed, the findings from this research illustrate that in practice they still do not fully meet businesses' individual design needs.

In the UK, evidence emerged that a major issue in the Designing Demand programme is the recruitment of businesses due to a lack of awareness of design and shortage of time and funds to invest in design. The barriers to the programme as perceived by the respondents are: (1) difficulties in encouraging businesses to go forward to the next workshop stage (in *Generate* and *Innovate*) from the Designing Demand Workshops; (2) the selection criteria for businesses are too stringent, making it difficult to find eligible businesses, and the intervention point at the business stage does not work well; (3) the areas supported by *Generate* to develop branding and marketing communications were often perceived as too superficial; and (4) in *Innovate* the participants are often not sufficiently interested in developing design in the programme.

In South Korea, by contrast, the funding support programme matches SMEs' fundamental needs better since they frequently have financial difficulties. However, this support was often developed without considering the different needs of businesses in terms of business size. Medium-size enterprises reported that they wanted a consulting/mentoring service to help diagnose design problems, to facilitate their business improvement solutions and to provide rich information about national and international design trends, whilst small-size enterprises preferred straightforward funding support.

Design support in the service sector

The service industry has continued to grow and become the major driving force in contemporary economies (Hollins *et al*, 2003; Maffei *et al*, 2005). In the UK, service industries have been growing since the 1950s, and now three-quarters of the UK economy is based on services while manufacturing is seriously stagnant, with a declining share of economic activity (Tether, 2008). Whilst the service industry in South Korea in 2005 accounted for about 50 per cent of real gross domestic product (GDP) growth, manufacturing represented only approximately 30 per cent (Korea Federation of Small and Medium Business, 2006).

In both nations the Design Council and the KIDP have not succeeded in providing design support for the service industry, despite recognizing that the industry is essential to the economy and that design is in great demand from the service sector. The results of the *British Design Industry Valuation Survey 2005–2006* (British Design and Innovation, 2006) illustrate that around 60 per cent of design agencies are working with businesses from the service sector, compared with less than 20 per cent of agencies working

with manufacturing businesses. By 2005, investment in design in South Korea had already reached about 40 per cent, although the service industry has only emerged since the 1990s (Korea Institute of Design Promotion (KIDP), 2006b).

Recently, according to the interviewees from the Design Council and KIDP, they have actively been engaged with the service industry to promote the role of design within its sectors (Design Council, 2011b, 2011c; Korea Institute of Design Promotion (KIDP), 2009). The London Development Agency (LDA) was keen to include both services and products, and therefore planned to create a support programme for the service sector in 2008 (an interviewee from the London Development Agency, 2008). However, since current programmes are mainly for manufacturing businesses, they are arguably unsuitable for the service industry, although a consensus has yet to be reached on this matter. Current theories, however, identify differences in design between the manufacturing and service sectors, and thus there are operating barriers to using traditional design approaches in the service sector (Tekes, 2007).

Delivery of the national business support programmes in design

There are two options for delivery of the national support programmes: delivery by the developer alone as in the case of the KIDP, South Korea; and delivery by other organizations, either independently or as a delivery partner with the developer, a format used by the Design Council in the UK. The key issue here is whether the delivery structure should be nationally or regionally based.

The research findings indicate that in the UK the structure of the national support programme and its relationship to the RDAs is complex, the delivery by RDAs at regional level is more appropriate than delivery by the NDC at national level. This is due to each RDA having a better understanding of its local situation and so being better able to plan effective delivery. The autonomy and flexibility of the delivery of the programmes at regional level is, however, still an important issue. The Design Council and design associates would prefer to deliver the programme without modifications, with Design Council representatives on the panels to select businesses for certain components of the programme, and recruiting the design associates. RDAs, however, have a perceived lack of autonomy in the running of the programme – even though they deliver it in their regions with their funds – and believe that they should have a right to run the entire programme as they see fit. The perceived lack of regional autonomy engenders a feeling that they are merely the delivery mechanism for the national programme in their regions.

Design advisory service

Although the two countries operate their respective national design programmes in differing contexts and both national centres report

that their programmes are working effectively and that participants' feedback has been positive (Design Council, 2007c; Korea Institute of Design Promotion (KIDP), 2006a), there are still critical issues in providing a Design Advisory Service from the current system.

In South Korea, there is no Design Advisory Service. Design agencies, which receive KIDP funding, provide design services to private businesses for the support programme without design advisers. Since design agencies should be selected from the KIDP's roster, about one-third of the business interviewees pointed out that working with the design agencies in the programme is much harder than working with other design agencies outside of the programme in terms of communication for design development. More importantly, businesses have less choice of design agencies, which therefore potentially results in poor quality and less cost-effective projects. KIDP, however, had no specific method for evaluating the outcome of the programme as a success or failure, but relies on participating businesses' self-evaluation, which was based on their estimation of the contribution of design to turnover, profit and brand value. As over half of the business respondents stressed, there are also difficulties obtaining the authority of the main operator between two beneficiaries in the projects. Therefore, both KIDP and the beneficiaries perceived the need for design experts who can act as intermediaries and give design advice in the programme.

In the UK there is much debate, on the basis of cost and autonomy, over whether the design advisers should belong to the Design Council or the RDA. Some RDA respondents stated that the programme is overly controlled by the Design Council, to which they are responsible because design associates fall within the Design Council's authority. Thus, over half of the respondents from the RDAs indicated they would be willing to employ and manage full-time design advisers and believed this would be more cost-effective. Conversely, both the Design Council and the design associates expressed concerns about cost: in that although regionally recruited advisers may be cost-effective, the cost reduction may also adversely affect the quality of the projects, because of difficulties in finding experts who are as highly qualified as the current design associates but with lower service fees.

Design competitiveness

Both the UK and South Korean governments recognize that many of their design agencies are uncompetitive because of poor professional skills (Design Council, 2006a; MOCIE, 2007; Korea Federation of Design Associations, 2007a). Most respondents believed the quality of design agencies was a key issue for running national programmes, since this directly influences the quality of design. Interviewees' responses on this issue in both countries can be summarized as: (1) lack of product knowledge in development, (2) low quality of design outcome, (3) communications difficulties with

businesses, (4) lack of understanding of clients' businesses, and (5) poor project management skills.

A large number of students graduate from design and design-related courses at colleges and universities – approximately 16,000 in 2003–2004 in the UK and 26,000 in 2006 in South Korea – with inadequate practical design skills (Design Council, 2006a; Ministry of Commerce, Industry and Energy (MOCIE), 2007). The key issue of the skills base of the UK and South Korean industries is the weak link between design education and current design practice (Design Council, 2006a; Korea Federation of Design Associations, 2007b). South Korean design education, for example, still focuses primarily on practical art skills with few links to the disciplines of marketing, engineering, business, and management, which leads to an average period of field adjustment for the graduate workforce of around 9.5 months (Ministry of Commerce, Industry and Energy (MOCIE), 2004, 2005). Theory-based education is another key issue, making it difficult for designers to see the relevance of their knowledge of design theory to practice; therefore, they often face many challenges in practice to which they fail to respond effectively.

In the training of professional designers, it is reported that design agencies and businesses in both countries are generally poor at developing their employees' skills, and that designers are provided with less job-related training than other similar occupational groups, with a resulting skills gap often characterized by low-quality performance (Design Council, 2006a; Ministry of Commerce, Industry and Energy (MOCIE), 2004, 2005; Office for National Statistics, 2003).

Marketing for the national support programmes and communication methods for promotion

Launching a product or service onto the market is a fundamental activity which requires the creation of a marketing strategy at organizational level, considering how best to make the product appealing, to maximize sales opportunities (Gurton, 2003). However, the respondents reported that both the UK's and South Korea's design support programme marketing activities fail to make businesses aware of the available programmes. Businesses often do not know what support is available and are therefore less likely to join the programme, and the delivery bodies have difficulty finding appropriate businesses to participate. It was reported that in the UK, businesses are introduced to the national support programmes by Business Link representatives (a government-funded business advisory service) or delivery partners, and by design agencies (another beneficiary of the support) in South Korea, rather than through the marketing of the NDCs or delivery bodies. Indeed, even though businesses are introduced to the programme through these channels, they still reported having no clear idea of the programme's components or whether these were appropriate to their needs. Moreover, the difficulty in the current delivery structure of the programme, especially

in the UK, is whether the Design Council or the RDAs should carry out the marketing for the programme, since the two parties have different marketing perspectives as the respective developer and deliverer of the support programme. Interviewees from the Design Council believed RDAs' marketing activities are more effective than those they carry out themselves, but respondents from the RDAs disagreed with this.

At the time of the study, marketing methods carried out in both countries were not effectively attracting enough businesses to participate in their respective programmes. In the UK, RDAs, delivery partners and business respondents believed most of the case studies provided by the Design Council to be too generalized and lightweight, lacking good stories and mainly compiled for the *Immerse* programme (appropriate for medium-sized enterprises). South Korea experienced similar issues.

Simplification of the business support programmes and supporting businesses in design

SMEs are universally regarded as the crucial engine for economic growth and employment (Bruce *et al*, 1998; Burns, 2007). The UK government invests £2.5bn per year on funding and advising businesses (Department for Business Enterprise & Regulatory Reform, 2008), whilst South Korea's 2008 business support budget is £6.3bn (Ministry of Planning and Budget, 2008). However, findings from this study indicate that access to government support is problematic. Most interviewees in both countries stressed that many businesses struggle to discover how and where they can obtain government help because of: (1) the numerous support programmes which include design (over 3,000 schemes in the UK (Department for Business Enterprise & Regulatory Reform, 2007, 2008), and over 1,400 in South Korea (Lee, 2006)) delivered by multiple providers (Design Council, 2007e; HM Treasury, 2008; Lee, 2006; Small and Medium Business Administration, 2008); (2) the lack of easily accessible information about the programmes; (3) poor links between support programmes; and (4) the unclear specialism of each programme because of similar or duplicated functions where even employees of business support agencies are often unclear what is on offer and which programmes work well.

Another key issue is that business support agencies lack specialists who both fully understand the business support schemes and also have industrial knowledge and extensive experience of working with businesses in design. This combination of skills is needed to diagnose business problems and needs, and act as intermediaries matching individual business needs with the relevant design providers.

Summary

The analysis of the study identified seven key issues relating to the drivers and barriers for implementing national support programmes

for design. It is clear that national context impacts upon the nature of the support needed by, and provided to, businesses in each country. The need for alternative recommendations for context specific models of national business support programmes for design was a key finding of the study. In response to the seven key issues identified above, recommendations are detailed in the next section.

Recommendations for National Business Support Programmes in Design

Following the analysis of the research activities, recommendations for the national business support programmes in design were developed which address the challenges identified in the previous section. The recommendations are detailed below. The responsibility for the development and implementation of the content and focus of the business support programme is dependent on the context and the model chosen. This section concludes with an overview of the links between the recommendations for the national business support programmes for design (see Figure 4).

Development of the national business support programmes

NDCs should conduct applied rigorous research on SMEs to understand their design needs in order to more effectively support businesses:

- NDCs should identify the different design needs of businesses based on sector, size and development stage.
- NDCs should identify the theory–practice gap to support businesses, focusing particularly on developing selection criteria for businesses, intervention points and contents.
- NDCs should set up a ‘Programme Advisory Group’ composed of business representatives from different sectors, sizes and development stages to ensure a more business-centred programme.

Design support in the service sector

NDCs should develop national design support programmes for businesses in the service sector:

- The NDC creates a new set of national support programmes with new selection criteria for service sector businesses.
- The Design Advisory Service recruits design advisers, who are experts in service design, to support the new programmes for the service sector.

Delivery of the national business support programmes in design

NDCs and Regional Support Agencies (RSAs) should have separate and defined roles in developing and delivering national design support programmes, and RSAs should have more flexibility and autonomy in delivery of the national design support programme and shared ownership with NDCs:

- NDCs should continuously develop the national support programmes.
- The RSAs deliver the programme developed for businesses in their regions with autonomy over the programme through shared ownership.
- The programme should be a standard model, with the flexibility to accommodate regional situations.
- Design advisers help RSAs to modify the programme for particular regional situations without affecting the quality of the programme.

Design advisory service

NDCs should provide a Design Advisory Service for national design support programmes and the Design Advisory Services should provide design support to both NDCs and RSAs:

- The NDC establishes a Design Advisory Service as a separate body.
- The organization for the Design Advisory Service is independent, but remains under the aegis of the design centre for performance-monitoring purposes.

Design competitiveness

Design degrees should focus on developing students' design skills and relevant business skills together and enable students' flexibility in devising their own designs through a business-oriented curriculum. Government should develop more training schemes to enhance Continual Professional Development (CPD) amongst design professionals:

- Colleges and universities should offer flexible design courses, which focus on improving students' design skills.
- They should work closely with businesses from industry to encourage students to meet the demands of industry and understand practice.
- They should develop design course content through the observation and assessment of the processes and tasks of students' collaborative projects with industry (businesses), and feed back to those students.

- They should provide rich experiences in working in multi-disciplinary projects both in academia and industry, encouraging integration with other disciplines, such as engineering, technology, business and management.
- More training schemes should be offered at governmental level to enhance CPD amongst design professionals.

Marketing for the national support programmes and communication methods for promotion

NDCs and RSAs should have separate and defined marketing roles for the national design support programmes and continuously develop creative methods for the effective promotion of design support programmes:

- RSAs should carry out marketing activities to deliver the national design support programme in their regions.
- The NDC should run a public relations (PR) campaign for the national design support programme.
- Both the NDC and RSAs should continually develop methods for the effective promotion of the programme. It is suggested that this should: (1) use technology-based visual and auditory information as an important tool in promotion strategies; (2) hold design forums, workshops and seminars for Chief Executive Officers (CEOs) in SMEs, to raise their awareness of the importance of design, and (3) provide businesses with a preliminary consultation design service.

Simplification of the business support programmes and supporting businesses in design

NDCs should produce all information about business support in design, and Business Support Agencies (BSAs) should ensure they have a comprehensively skilled workforce in design support:

- NDCs should produce all information about business support in design at national and regional level, and make it available to businesses and the business support agencies.
- The BSAs should ensure they have a comprehensively skilled workforce in design, to provide more effective diagnostic and intermediary services for design.

Links between the recommendations

It is clear that the above recommendations for national business support programmes in design are multi-layered, interrelated and interdependent. Figure 4 presents the nature of the links between the individual recommendations.

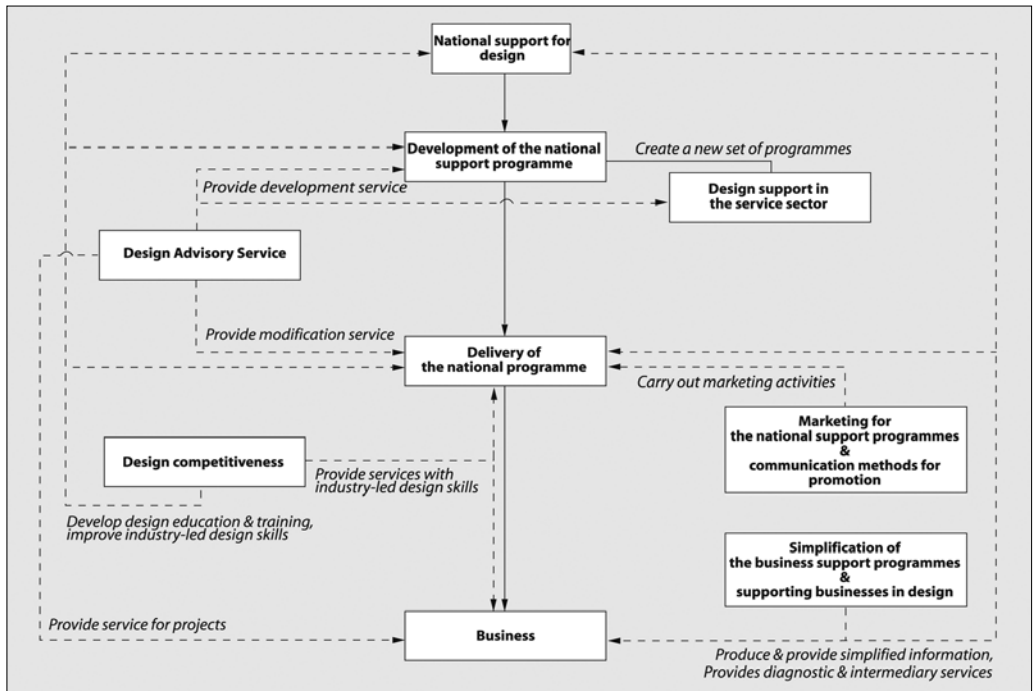


Figure 4
Links between the recommendations.

Stakeholder Feedback upon Proposed Recommendations

Feedback upon the proposed recommendations for national business support programmes in design was obtained via a survey from 11 respondents involved in national design policies or design-related activities in six countries (Choi *et al*, 2010). The results clearly indicate that respondents from different organizations and regions vary in their opinions on the recommendations, and were influenced by both their geographical and political contexts and their political and cultural environments (Choi *et al*, 2010). The results reveal broad agreement amongst the respondents about most components of the recommendations (Table 1).

There were, however, some contradictions in certain aspects of the recommendations depending on the respondent's organization. First, most NDC respondents strongly believed providing businesses with a preliminary consultation design service is an important way to promote national business support programmes in design, but only about half the respondents from other organizations agreed. Second, all design NGO respondents believed NDCs should produce information about business support programmes in design at both national and regional level for businesses, whilst only half the NDC respondents agreed. Third, many respondents thought the PR campaign for the national support programmes in design is the NDCs' responsibility and only half believed RSAs should carry out regional marketing activities to deliver the national business

Table 1 Stakeholder feedback about proposed recommendations of national business support programmes in design.

Development of the programmes	All respondents agreed that NDCs should conduct applied rigorous research on SMEs to understand their design needs, in order to effectively support businesses, and most respondents (10)* agreed that NDCs should set up a 'Programme Advisory Group'.
Design support in the service sector	Most respondents (9) believed NDCs should develop national design support programmes for businesses in the service sector. The Eastern countries are more concerned about the service sector than those in the West.
Delivery of the programmes	Most respondents (8) were positive about the proposition of having separate and defined roles between NDCs and RSAs in developing and delivering the programmes, and sharing ownership of the delivery of the programme in their respective regions.
Design Advisory Service	Most respondents (8) believed NDCs should provide a Design Advisory Service for national design support programmes (all NDC and design NGO respondents agreed).
Design competitiveness	Most respondents (10) agreed (7 strongly agreed) with the proposition on design education at tertiary level, and 8 agreed that university design degree courses should enable students flexibility in devising their own design through a business oriented curriculum. There was no organizational bias, but Western respondents agreed more strongly with these ideas.
Marketing and communication of the programmes	<p>Most respondents (8) believed NDCs should run the programme PR campaigns, but six respondents thought RSAs should carry out regional marketing activities to deliver the national design support programmes.</p> <p>On communication methods for promotion of the programmes, seminars for CEOs in SMEs were reported as an effective method (10 agreed and 8 strongly agreed), reflecting the importance of raising design awareness of CEOs in SMEs to invest in design, although only half the respondents agreed with using technology-based visual and auditory information.</p>
Simplification of the programmes	Most respondents (10) believed the business support agencies should ensure they have a comprehensively skilled workforce in design support, to provide more effective diagnostic and intermediary services.

* Numbers given in parentheses indicate number of respondents

support programmes in design. Half the respondents from NDCs and respondents from design NGOs strongly disagreed with the recommendation, but respondents from design-related organizations, which are currently involved in the delivery of the national business support programme in design, strongly agreed. Responses about the training schemes for professionals differed regionally. While all respondents in the Eastern countries strongly believed training

schemes to enhance CPD amongst design professionals should be government responsibility, Western respondents varied from strong agreement to strong disagreement.

The critical issues influencing the implementation of national business support programmes in design surround autonomy. Responses to most of the recommendations which raised autonomy issues varied according to the respondent's organization. First, RSA respondents wanted flexibility and autonomy in the delivery of national design support programmes, and most respondents from design NGOs and design-related organizations supported this position, whereas NDC respondents were neutral or negative about giving RSAs greater flexibility and autonomy. Second, all design NGO respondents strongly agreed that Design Advisory Services should be independent from NDCs, while those working for NDCs generally disagreed.

It is therefore clear that the recommendations, including the autonomy issues, should be applied with due consideration to respective countries' different cultures and political environments and respective organizations' perspectives and purposes. The Design Council and RDAs in the UK have recently undergone some changes: the Design Council has merged with CABE (The Commission for Architecture and the Built Environment) and its role has been changed to a Non-Departmental Public Body (NDPB, Royal Charter charity organization) with reduced government funding (Department for Business, Innovation & Skills, 2010), and the UK government has announced its decision to close RDAs by April 2012 (Regional Development Agency Network (RDAN), 2011). However, the Design Council will still need to work in close partnership with the Department for Business, Innovation and Skills in order to help Britain use design to build a stronger economy and society, that is, it needs to be responsive to industry, advise government and help the public sector (Department for Business, Innovation & Skills, 2010; Design Council, 2011a), and the government will form Local Enterprise Partnerships which represent the views of the current RDAs (Regional Development Agency Network (RDAN), 2011). The authors therefore do not envisage these changes greatly influencing the application of the recommendations, but it may be necessary to take into account the changed political environments and the organizations' purposes, in further developing and implementing the programmes.

A final interesting finding was that many respondents borrow aspects of other countries' cases when developing their national design policy and design support programmes.

Conclusions and Future Research

The aim of this study was to understand national business support programmes in design and propose recommendations, using the UK and South Korea as case studies. The study reviewed national

support programmes in the UK and South Korea to identify the drivers for, and barriers to, implementing national business support programmes in design. The results of this research illustrated that while there are some similarities in barriers to such support, for example, lack of understanding of national design centres regarding SMEs or lack of marketing for the programmes, government support for industry through NDCs differs in the two countries due to the different content and structure of programme delivery. The research findings also indicate that the critical issues influencing national support surround autonomy. This was clearly evident in both countries. The context specificity of the requirements for national business support programmes in design, for example, the unique political environments of the different countries and associated remit and function of organizations, underscored the findings.

This research would benefit from further studies of: (1) national business support programmes in design in other countries, using the key findings of this study to seek appropriate approaches for development of design capabilities for improving competitiveness and economic growth, with specific consideration of the critical issues, and (2) the policy of central governance and control versus local autonomy.

References

- Bank of England (1996). *Finance for Small Firms: A Third Report*. London: The Bank of England.
- Bennett, R. J. (2006). 'Government and small business'. In Carter, S. and Jones-Evans, D. (eds), *Enterprise and Small Business Principles, Practice and Policy*, 2nd edn. Harlow: Pearson Education.
- Blaich, R. (1988). 'Design as a corporate strategy'. In Gorb, P. (ed.), *London Business School Design Talks!* London: Design Council.
- British Design and Innovation (2006). 'British Design Industry Valuation Survey 2005 to 2006'. In British Design and Innovation (eds), *British Design Industry Valuation Survey*. London: British Design and Innovation.
- Bruce, M., Cooper, R. and Vazquez, D. (1998). *Effective Design Management within Small and Medium Sized Businesses – End of Project Report*. Design Council Co-Partnership Project. London: UMIIST, Salford University, Design Council.
- Bureau of European Design Associations (2004). *Design Issues in Europe Today*. Barcelona: The Bureau of European Design Associations.
- Burns, P. (2007). *Entrepreneurship and Small Business*. New York: Palgrave Macmillan.
- Choi, Y., Cooper, R., Lim, S. and Evans, M. (2010). 'National support for design: The development of propositional models'. *Design Management Review*, 21(4), 60–69.

- Commission on Public Policy and British Business (1997). *Promoting Prosperity: A Business Agenda for Britain*. London: The Commission on Public Policy and British Business.
- Cox, G. (2005). *Cox Review of Creativity in Business: Building on the UK's Strengths*. London: HM Treasury
- Department for Business Enterprise & Regulatory Reform (2007). *Simplifying Business Support: Government Response to Consultation*. London: Department for Business Enterprise & Regulatory Reform.
- Department for Business Enterprise & Regulatory Reform (2008). *Simple Support, Better Business: Business Support in 2010*. London: Department for Business Enterprise & Regulatory Reform.
- Department for Business, Innovation & Skills (2010). *Design Council Review 2010*. London: Department for Business, Innovation & Skills.
- Department of Trade and Industry (2003). *Competing in the Global Economy: the Innovation Challenge*. London: Department of Trade and Industry.
- Design Council (2006a). *Design a New Design Industry: Design Skills Consultation*. London: Design Council and Creative & Cultural Skills.
- Design Council (2006b). *5 Stories of Global Competitiveness*. London: Design Council.
- Design Council (2007a). *What We Do* [online]. London: Design Council. Available at: <http://www.designcouncil.org/en/Design-Council/1/What-we-do/> [accessed 27 February 2007].
- Design Council (2007b). *Designing Demand* [online]. London: Design Council. Available at: <http://www.designcouncil.org/en/Directory-Listings/Practical-help-for-businesses/Designing-Demand/> [accessed 9 May 2007].
- Design Council (2007c). *Designing Demand FAQs* [online]. London: Design Council. Available at: <http://www.designingdemand.org.uk/FAQs> [accessed 9 May 2007].
- Design Council (2007d). *Design Council Operational Plan 2007–2008*. London: Design Council.
- Design Council (2007e). *Brief Update on Progress of the Cox Review*. London: Design Council.
- Design Council (2007f). *Designing Demand: Make Design Deliver Lasting Success for your Business*. London: Design Council.
- Design Council (2007g). *High-level Skills for Higher Value: UK Design Industry Skills Development Plan*. London: Design Council and Creative & Cultural Skills.
- Design Council (2011a). *About Us: Design Council Review* [online]. London: Design Council. Available at: <http://www.designcouncil.org.uk/about-us/The-Design-Council-and-CABE/Design-Council-Review/> [accessed 20 July 2011].

- Design Council (2011b). *Designing Demand Case Studies* [online]. London: Design Council. Available at: <http://www.designcouncil.org.uk/our-work/support/Designing-Demand/Case-studies/?p=0> [accessed 22 July 2011].
- Design Council (2011c). *Frequently Asked Questions about Designing Demand* [online]. London: Design Council. Available at: <http://www.designcouncil.org.uk/our-work/support/Designing-Demand/FAQs/> [accessed 22 July 2011].
- Gemser, G. (1997). 'Industrial Design for competitiveness'. *2nd European Academy of Design Conference: Contextual Design – Design in Contexts*. The Royal Institute of Technology, Stockholm, 23–25 April 1997.
- Greiner, L. E. (1972). 'Evolution and revolution as organizations grow'. *Harvard Business Review*, 50, 27–46.
- Gurton, A. (2003). *How to Get into Marketing and PR*. London and New York: Continuum International Publishing Group.
- Hamel, G. and Prahalad, C. K. (1994). *Competing for the Future*. Boston, MA: Harvard Business School Press.
- Hannon, W. J. (1993). 'Should government promote design? A design initiative for economic growth'. *Design Management Journal*, 4, 22–30.
- Hertenstein, J. H., Platt, M. B. and Brown, D. R. (2001). 'Valuing design: Enhancing corporate performance through design effectiveness'. *Design Management Journal*, 12(3), 10–19.
- HM Treasury (2008). *Enterprise: Unlocking the UK's Talent*. London: HM Treasury, Department for Business Enterprise & Regulatory Reform.
- Hollins, B., Blackman, C. and Shinkins, A. (2003). 'Design and its management in the service sector – updating the standard'. *5th European Academy of Design Conference – Techné: Design Wisdom*. University of Barcelona, April 2003.
- Hytönen, J. and Heikkien, H. (2003). *Design Policy and Promotion Programmes in Selected Countries and Regions*. Helsinki: The New Centre of Innovation in Design in the University of Art and Design in Helsinki.
- Kim, T. (2006). 'Overview of design promotion in Korea'. *SEEdesign*, 3, 11–12.
- Korea Federation of Design Associations (2007a). *21st Century Korea Design Declaration – Policy Proposal: Vision Creative Korea by Design*. Sunnam: Korea Federation of Design Associations.
- Korea Federation of Design Associations (2007b). *21st Century Korea Design Declaration*. Sunnam: Korea Federation of Design Associations.
- Korea Federation of Small and Medium Business (2006). *Statistics of Small & Medium Enterprises for 2006*. Seoul: Korea Federation of Small and Medium Business.

- Korea Institute for Design Promotion (KIDP) (2004). *Report on the National Design Policy in Korea 2004*. Sunnam: Korea Institute of Design Promotion.
- Korea Institute for Design Promotion (KIDP) (2006a). *Internal Manual of Current Supporting Programmes*. Sunnam: Korea Institute of Design Promotion.
- Korea Institute for Design Promotion (KIDP) (2006b). A Report of Design Awareness and Abroad Competitiveness in Korea. Sunnam: Korea Institute of Design Promotion.
- Korea Institute for Design Promotion (KIDP) (2006c). 'Design Innovation Programme'. Presented by T. Kim in the *International Workshop on Design Support (IWDS)*, Cardiff, 10–11 May 2006.
- Korea Institute for Design Promotion (KIDP) (2009). *Design Consulting Service for Business Innovation*. Sunnam: Korea Institute for Design Promotion.
- Lee, J. (2006). 'Introduction of the national policy for SMEs'. *Financial News*, 15 May.
- Maffei, S., Mager, B. and Sangiorgi, D. (2005). 'Innovation through service design – from research and theory to a network of practice. A users' driven perspective'. *Joining Forces Conference*. Helsinki, Finland, 21–23 September 2005.
- Ministry of Commerce, Industry and Energy (MOCIE) (2004). *Design Industry Development Strategy of the Participatory Government*. Gwacheon: Ministry of Commerce Industry and Energy (Design Industry Development Planning Group).
- Ministry of Commerce, Industry and Energy (MOCIE) (2005). 'Strategy of design industry development 2015'. In The Federation of Korean Industries (eds), *Vision and Strategy of Industry Development 2015*. Gwacheon: The Federation of Korean Industries.
- Ministry of Commerce, Industry and Energy (MOCIE) (2007). *Plan for the Development Strategy of the Design Industry – for National Competitiveness and Quality of Life*. Gwacheon: Ministry of Commerce Industry and Energy & Korea Institute of Design Promotion.
- Ministry of Planning and Budget (2008). *Summary of Budget for Fiscal Year 2008*. Kwachun: Ministry of Planning and Budget.
- National Agency for Enterprise and Housing (2003). *The Economic Effects of Design*. Copenhagen: National Agency for Enterprise and Housing.
- Office for National Statistics (2003). *Annual Labour Force Survey 2002–2003*. London: Office for National Statistics.
- Porter, M. E., Schwab, K. and Lopez-Claros, A. (2005). *Global Competitiveness Report 2005–2006*. Switzerland: World Economic Forum.
- Regional Development Agency Network (RDAN) (2011). *The New Local Enterprise Partnerships* [online]. London: Parliament: Regional Development Agency Network. Available at: <http://>

- www.publications.parliament.uk/pa/cm201011/cmselect/cmbis/memo/localent/localent84.htm [accessed 20 July 2011].
- Small and Medium Business Administration (2008). *Support Business*. [online]. Seoul: Small and Medium Business Administration. Available at: http://www.smba.go.kr/main/sub003/PolicyList.jsp?pl_cd=01 [accessed 1 July 2008].
- Tekes (2007). *Seizing the White Space: Innovative Service Concepts in the United States*. Helsinki: Tekes, The Finnish Funding Agency for Technology and Innovation.
- Tether, B. (2005). *The Role of Design in Business Performance*. Manchester: CRIC, University of Manchester.
- Tether, B. (2008). 'Service design: Time to bring in the professionals?' In Kimbell, L. and Seidel, V. P. (eds), *Designing for Services — Multidisciplinary Perspectives: Proceedings from the Exploratory Project on Designing for Services in Science and Technology-based Enterprises*, Said Business School. Oxford: University of Oxford.
- Topalian, A. (1990). 'Developing a corporate approach'. In: Oakley, M. (ed.), *Design Management: A Handbook of Issues and Methods*. Oxford: Butler & Tanner Ltd.
- Valtonen, A. (2007). *Redefining Industrial Design: Changes in the Design Practice in Finland*. Helsinki: University of Art and Design Helsinki.
- Walton, M. and Duncan, I. (2003). *Building a Case for Added Value through Design: Report to Industry New Zealand*. Wellington: NZ Institute of Economic Research.
- Walton, T. (1993). 'Options regarding a US design policy'. *Design Management Journal*, 4(3), 6–9.
- Walton, T. (2004). 'Design as economic strategy'. *Design Management Review*, 15, 6–9.
- World Economic Forum (2002). *Global Competitiveness Report 2001–2002*. New York and Oxford: Oxford University Press.

Biographies

Youngok Choi is a Lecturer in the School of Engineering and Design at Brunel University. Her research interests include design management, design policy and strategy at business and government level, innovation in NPD and design in public. She has been involved in research projects over the last five years, primarily concerned with national design policy and particularly in reference to business support in the UK and South Korea, the future of the UK Design Industry, and communication issues in the new product development process within organizations. She was principal investigator upon industry-funded research projects 'Home Appliance Innovation Research and Design Strategy Development' and 'Strategic Models and Future Concepts for Convergence and Cross Mobile Computing IT' in 2010 and 2011 respectively.

Sungwoo Lim is a Research Associate and Project Coordinator in the Construction Management Research Group, joining Loughborough University in 2008. His current research focuses mainly on design application and optimization of printing path for Concrete Printing process. Prior to this, he was an architectural designer, worked at the University of Strathclyde and Brunel University, and was involved in six research projects including his PhD research. He has multi-disciplinary research experiences and interests in, for example, sketch recognition, Shape Grammar (SG), Additive Manufacturing (AM), Computer-aided Architectural Design (CAAD), Human Computer Interaction (HCI) and Design Management (DM).

Martyn Evans is a Senior Lecturer in Design at Lancaster University. His research interests explore the approaches designers use to consider the future, in particular the ability of designers to envision potential social, cultural, technological and economic futures. As a trained product designer, his research activities centre on design futures, trends, and forecasting, and he has published over 35 peer-review articles in this and associated areas. He was co-investigator upon Design2020, a UK research council funded project exploring potential futures for the UK design industry (www.ukdesign2020.org), and has secured and supervised a number of government-funded knowledge transfer initiatives within the area of design and new product development. With extensive experience of leading undergraduate and postgraduate design curricula, he is Course Director for MA Design Management at Lancaster University, is external examiner at a number of UK institutions and has acted as an academic advisor for curriculum development both nationally and internationally.

Addresses for Correspondence

Dr Youngok Choi, School of Engineering and Design, Brunel University, Uxbridge, Middlesex UB8 3PH, UK.

Tel: +44 (0) 1895 266573

Email: youngok.choi@brunel.ac.uk

Dr Sungwoo Lim, Civil and Building Engineering, Loughborough University, Loughborough, Leicestershire LE11 3TU, UK.

Tel: +44 (0) 1509 223782

Email: s.lim@lboro.ac.uk

Dr Martyn Evans, ImaginationLancaster, Lancaster Institute for the Contemporary Arts, Lancaster University, Lancaster LA1 4YW, UK.

Tel: +44 (0) 1524 510875

Email: m.evans@lancaster.ac.uk

Acknowledgements

The authors would like to thank the Design Council and KIDP for their cooperation, and to acknowledge the support for this research from all the respondents involved in the national design policy and business support programmes in design at national design centres, design NGOs, RDAs, delivery partners and businesses. Special acknowledgement also goes to Professor Rachel Cooper at Lancaster University for her great contribution and tremendous support. The views presented in this paper are those of the authors.